

## Amendments to the Claims

Claim 1-38 (Canceled)

Claim 39 (New) An optical transmission system comprising:  
an optical transmitter for transmitting an optical signal;  
an optical separation part; and  
a plurality of optical receivers for receiving the optical signal via an optical fiber  
and said optical separation part,  
wherein said optical transmitter comprises:

a modulation part for modulating carriers of differing frequencies with  
transmission data to produce modulated signals;  
a frequency division multiplex part for multiplexing the modulated signals  
to produce a frequency division multiplex signal;  
an intensity modulation part for intensity-modulating the optical signal  
with the frequency division multiplex signal to produce an intensity-modulated  
optical signal transmitted via the optical fiber,  
wherein said optical separation part separates the intensity-modulated optical  
signal transmitted via the optical fiber into a plurality of separate optical signals, and  
wherein said plurality of optical receivers each comprise:  
an external modulation part for intensity-modulating one of the plurality of  
separate optical signals with an electrical signal equal in frequency to one of the  
carriers modulated in said modulation part; and  
an optical-electrical conversion part for converting the one separate optical  
signal intensity-modulated by said external modulation part into an electrical  
signal.

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Claim 40 (New) The optical transmission system according to claim 39, wherein  
the transmission data includes digital data, and  
said modulation part includes a digital modulation part for subjecting the carriers of  
differing frequencies to digital modulation with the digital data.

**Claim 41 (New)** The optical transmission system according to claim 39, further comprising means for extracting desired transmission data from the electrical signal obtained by conversion in said optical-electrical conversion part.

**Claim 42 (New)** The optical transmission system according to claim 39, further comprising a low pass filter for extracting desired transmission data from the electrical signal obtained by conversion in said optical-electrical conversion part.

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